

# Terminal Evaluation

## Middle East

### 1. Outline of the Project

**Country:**

Egypt

**Project title:**

The Water Supply Technology Training Improvement Project

**Issue/Sector:**

Water Supply

**Cooperation scheme:**

Project-type Technical Cooperation

**Division in charge:**

Second Technical Cooperation Division,  
Social Development Cooperation  
Department

**Total cost:**

815 Million Yen

**Period of  
Cooperation**

1 June 1997 - 31  
May 2002

**Partner Country's Implementing Organization:**

General Organization for Greater Cairo Water Supply (GOGCWS)

**Supporting Organization in Japan:**

Ministry of Health, Labour and Welfare

**Related Cooperation:****1-1 Background of the Project**

The Government of Egypt has placed a special high priority on expansion of the water supply capacity in the Greater Cairo Area and improvement of the management of the General Organization for Greater Cairo Water Supply (GOGCWS) among its national development plans. As a result, GOGCWS made designated the enhancement of staff training and improvement of its works its major objectives. However the training that had been conducted up until that time mainly consisted of lectures. Even though GOGCWS was aware of the importance of the practical studies, it was difficult for them to implement practical training by itself because of a lack of equipment and human resources. Under these circumstances, the Government of Egypt requested the Government of Japan to provide the Project-type Technical Cooperation to meet the training course needs of its staff.

**1-2 Project Overview**

With the aims of expansion and fulfillment of GOGCWS' staff training courses, the Project organized training programs based on the technical training needs of the staff of GOGCWS and transferred techniques so that GOGCWS could conduct the training including practical studies on its own.

**(1) Overall Goal**

Sufficient safe drinking water is supplied in stable conditions to the residents of the Great Cairo Area.

**(2) Project Purpose**

GOGCWS personnel's performance is improved through technical training.

**(3) Outputs**

- 1) The needs for training are identified by the survey for training needs of GOGCWS (the need survey).
- 2) Based on the need survey, programs of the training courses are developed in the five fields of Water Supply Planning, Water Quality and Treatment Process, Water Distribution and Service System, Operation and Maintenance of Mechanical Installations and Operation and Maintenance of Electrical Installations.
- 3) Facilities, equipment and materials are installed, operated, and utilized by Egyptian participants for the training courses.

#### (4) Inputs

Japanese side:

Long-term Experts	12	Equipment	205 Million Yen
Short-term Experts	21	Local Cost	12 Million Yen
Trainees received	14		

Egyptian side:

Counterparts	37		
Land and Facilities	1,025,823 Egyptian Pounds (29 Million Yen)		
Local Cost	270,725 Egyptian Pounds (8 Million Yen)		

## 2. Evaluation Team

### Members of Evaluation Team

Team Leader/General: Kunikane SHOICHI, Director, Department of Water Supply Engineering, National Institute of Public Health  
Water Supply Technology: Kiyoshi MIYAUCH, Senior Staff Officer, Engineering Division, Osaka City Water Works Bureau  
Evaluation Planning: Akiko KOMORI, Staff, Second Technical Cooperation Division, Social Development Cooperation Department, JICA  
Evaluation Analysis: Michiyuki KEMMOTSU, Managing Director, Chuo Kaihatsu Corporation

### Period of Evaluation

3 February 2002 - 15 February 2002

### Type of Evaluation:

Terminal Evaluation

## 3. Results of Evaluation

### 3-1 Summary of Evaluation Results

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#### (1) Relevance

Among the national development plans, the Government of Egypt placed high priority on the improvement of GOGCWS management. Both the Project Purpose and the Overall Goal are in line with the development policy of Egypt. The Project supports technical training, mainly practical studies. While it also supports aid by the other international organizations or aid agencies is for the enhancement of management or organization, it does not compete with those projects. Rather, it the aim is toward the effect of synergy. The Project is also effective in terms of the supporting the efficiency of facilities organized by grant aid and ODA loan to the water supply sector of Egypt. Judging from the above facts, the Project is considered to be highly consistent with the water policies of Egypt.

#### (2) Effectiveness

The verifiable indicators of the Project Purpose on the PDM, such as the number of completed training courses and fostered trainers, were mostly accomplished, and the Project was useful for the improvement of GOGCWS staff techniques as the participants who finished the training course did so with a changed attitude toward work efficiency. However to accurately measure the Project Purpose, there was a difference among these indicators and the Project Purpose and, as the Project is technique training reflecting the consciousness on the Egyptian side, indicators such as the number of major accidents, downtime of the drinking water treatment plant and the rate of water leakage should be presented. The Project Purpose is not immediately accomplished singularly by the training implemented in the Project, meaning other necessary requirements must be fulfilled. This being the case, it is difficult to obtain enumerate those indicators. Although the effectiveness is expected to be high, it is too early to judge the effectiveness of the Project at this moment.

### (3) Efficiency

The Amiryra Water Treatment Plant, originally planned as the implementing organization, was unsatisfactory for project implementation due to a lack of space for the equipment and annexed structure for water supply and drainage. The implementing organization was changed to the Mostorod Filtration Plant (Mostorod Training Center). Due to this change, activities such as course development and the dispatch of experts and the inputs of equipment for the activities were concentrated in the latter half of the Project. As a result, the processes of the Project was hampered and not very well balanced. However, the scale of the inputs by the Japanese side (Long-term experts, Short-term experts, equipment and training of counterparts in Japan) and the inputs by the Egyptian side (counterparts, training yard and its addition and betterment) were for the most part appropriate, and all of these were effectively utilized.

### (4) Impact

The concept of Water Engineering and Health Engineering as general techniques including machinery, electronics, civil engineering and chemistry was first introduced to Egypt through the Project, and there was an impact which may have changed ideas as to water supply technique training in the country. GOGCWS, making the Project its core activity, has started to review the system of technique training including the traditional training course and all of its contents from FY 2001. There was no negative impact.

### (5) Sustainability

GOGCWS, having made the Project the center of its focus, is now examining the system of techniques training, its contents and organizational changes in the techniques training sector. The techniques were smoothly transferred to the counterparts and their settlement ratio was high. Therefore, after completion of the period of cooperation, the trainees will become core personnel, and the training center will be maintained and operated based on the techniques built up through the training course. Although the Egyptian products have quality problems with regard to the procurement of some reagents or glass appliances, basically, many of the products can be procured in Egypt so long as a budget is allocated; therefore, it is possible to maintain and operate the training course. The budget allocation for next fiscal year and after has not been secured; however, considering the past allocation and the fact that the Training Center is becoming highly appreciated within GOGCWS, it is expected that a sufficient budget will be allocated. Judging from above, the Project has sustainability in terms of human resources, and physical and financial resources.

## **3-2 Factors that promoted realization of effects**

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### (1) Factors concerning Planning

N/A

### (2) Factors concerning the Implementation Process

1) As a result of the survey on the needs conducted jointly by Egypt and Japan, the planned project site was found to be inappropriate, and it took considerable time and effort to select an alternative site and to add and improve the training yard. However, due to the change in the site, training facilities could be concentrated, and more functional training could be implemented. In that regard, a mutual understanding was promoted contributing to the progress during the latter half of the Project.

2) Except for the one counterpart who left because of a health problem, the counterparts assigned in the beginning of the Project are still working at GOGCWS, and the transferred techniques are effectively utilized on an ongoing basis.

## **3-3 Factors that impeded realization of effects**

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### (1) Factors concerning Planning

At the beginning of the Project, plans such as the curriculum, equipment installation and facilities set up were not finalized. The arrangement of training environment, such as the transfer of project site, took much time and effort before the training was actually commenced, which is why activities were concentrated during the latter half of the Project. Therefore, the process of the Project was ineffective and not well balanced.

### (2) Factors concerning the Implementation Process

N/A.

## **3-4 Conclusion**

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In the first half of the Project, as the implementation of inputs and activities was delayed, the Outputs of the Project were not

accomplished as planned. However, in the latter half of the Project, activities were smoothly conducted, and the Project Outputs, which were once thought to be difficult to attain, are likely to be accomplished. The Project Purpose was settled at a higher level than expected, reflecting the intentions of the Egyptian side. The accomplishment of verifiable indicators took quite a while after the accomplishment of the Project Outputs, and it is also necessary to consider the outer terms. The evaluation of the relevance, effectiveness, impact and sustainability are high, and, in conclusion, the Project was successfully implemented.

### **3-5 Recommendations**

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(1) It is necessary to put together the Outputs before the end of the Project as well as to address the following items.

1) To increase the ratio of practice courses in the overall training course.  
2) To establish a supply system for commodities and parts that are difficult to obtain in Egypt (reagents related to water quality and glass equipment) and to establish a procurement, maintenance and management system for equipment by concluding a maintenance and management contract with a local agency to take care of the equipment that requires high quality upkeep, such as the atomic absorption machine.

(2) The training center of the Project could be the Arabic world-oriented implementing organization for the local training program and the third-country training program, and in the future, it is expected to carry out that function.

(3) The Project Purpose of performance improvement through the technical training can not be accomplished only by implementing the technical training. It is also necessary that the participants bring back the outcomes of the training and utilize them in their daily work, for which, in addition to the efforts of the participants, GOGCWS's efforts are required to adjust activities implementation at the workplace and equipment for participants to utilize the outcomes.

### **3-6 Lessons Learned**

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(1) According to the needs survey at the earlier stages of the Project, the project site was changed from the planned site to the new site. However, from the viewpoint of the efficiency, it is necessary to improve the advanced survey to preclude site changes.

(2) In case of a technical training project such as this one, the Project's overall framework including that for facilities should follow that the framework the aid agency has prepared. However, it is meaningful that the project framework is built up through discussions with counterparts during the project, because the style has the positive side that mutual understanding is deepened, and the counterpart country's subjective project management is promoted.

(3) The contents of the training in Japan were general and comprehensive including the full range of water supply techniques that were particularly consistent with the needs of the Egyptian side which desired a training course specialized in each field of water supply techniques including practical training. The project should flexibly address the needs of participants by implementing a training program which covers the needs of counterparts through individual training in addition to group training.

### **3-7 Follow-up Situation**

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